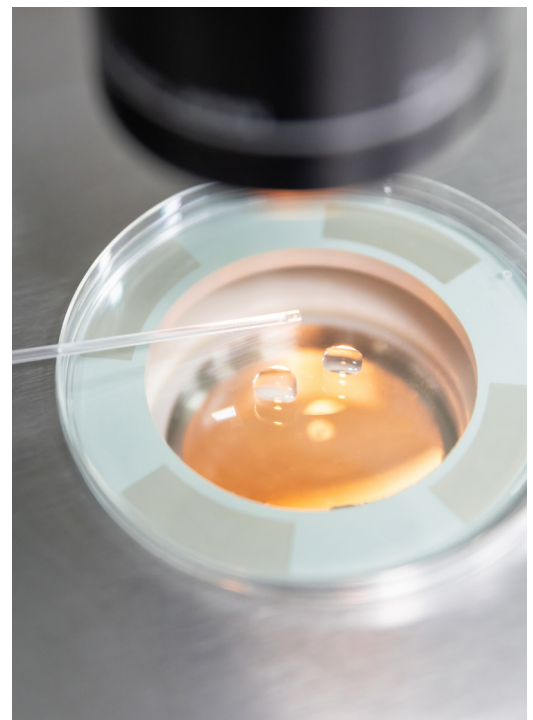


Together. All the way™

Vitrification from Vitrolife – now smarter than ever

Discover the Rapid-i™ Vitrification System. Now with a third-generation SmartBox to further enhance the user experience and comfort.



For safe, easy and successful vitrification



The Rapid-i Vitrification System has long been the natural choice for embryologists looking to optimise their vitrification workflow. The method, media, device, and accessories are all you need to simplify your workflow – from vitrification and storage to warming of oocytes and embryos.

Challenges in the IVF lab

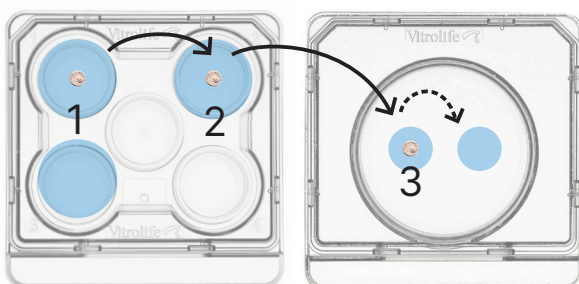
Vitrification has become the cryopreservation method of choice due to the excellent outcomes. Vitrification, however, is time demanding and requires meticulous handling. Thus, the users are asking for a streamlined workflow and for a consistent and efficient procedure. With an increasing number of cryo cycles, the practical aspects of the method are more important than ever.



Smooth workflow

Standardised protocols

The Rapid-i Vitrification System includes straight-forward protocols with standardised volumes to ensure stable conditions. Simply move the oocytes or embryos between wells in a few short and defined steps.



Reduce stress

Vitrify, seal and store without stress. After loading, the Rapid-i is placed into the pre-cooled RapidStraw. The air inside the straw is super-cooled by the surrounding liquid nitrogen, allowing vitrification to occur instantly. The RapidStraw is ultrasonically sealed after vitrification, which makes it easier for the operator to perform the critical dehydration steps within the time frames.

Easy to use

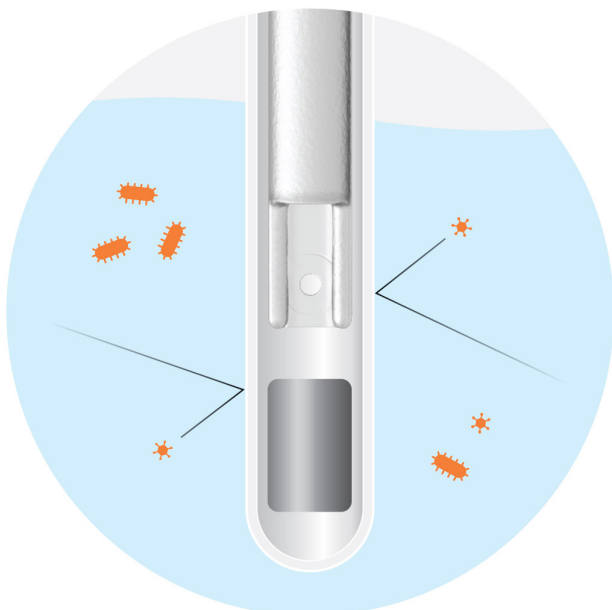
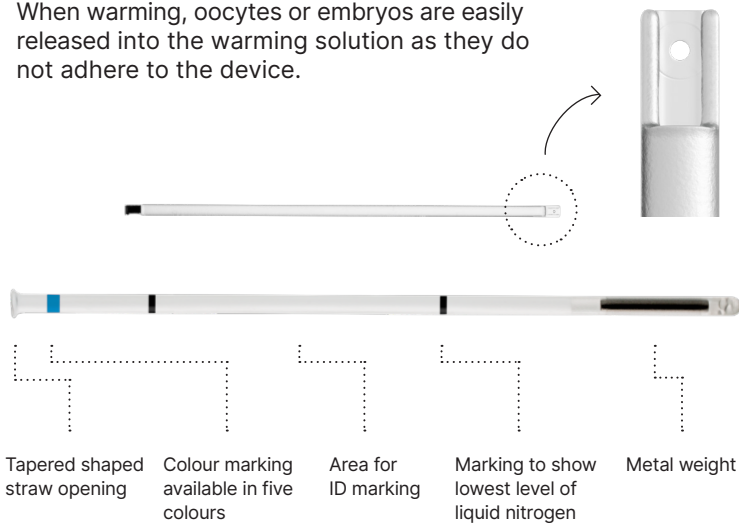
The Rapid-i Kit is renowned for its simple handling. It supports a smooth workflow and eliminates risks of contamination during vitrification, storage and transport.

Easy to load

Oocytes or embryos are held by surface tension in a standardised volume. This simplifies loading and reduces variability between operators. It is easy to see when the right volume of medium has been applied.

No sticking to device

When warming, oocytes or embryos are easily released into the warming solution as they do not adhere to the device.



Rapid-i Kit is available in five colours to simplify identification and cryostorage management.



Sealed straw - safe storage and warming.



Aseptic and closed system

- Safe vitrification in super-cooled air in pre-cooled straw
- No contact with liquid nitrogen
- No need to sterilise liquid nitrogen
- Sealed straw – safe storage and warming

Regulatory requirements in many countries are shifting towards the use of closed devices. In the light of the COVID-19 pandemic, it is imperative to follow the highest biosafety protocols and use closed vitrification devices.¹⁴

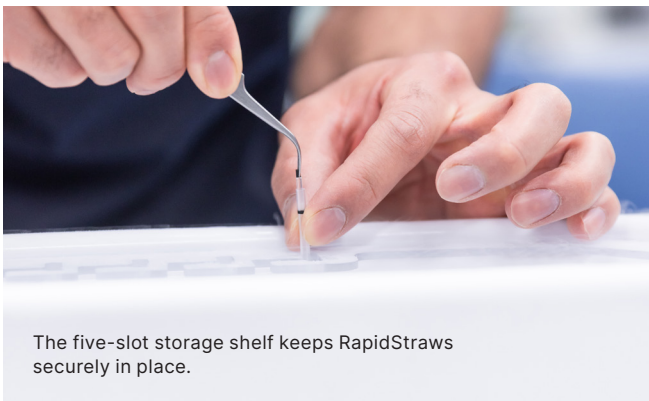
Introducing the SmartBox 3

To further enhance the user experience of the Rapid-i Vitrification System, it now comes with a third-generation SmartBox. The SmartBox 3™ has been developed in close collaboration with clinics around the world and is designed to keep you well-organised, safe, and to improve your working comfort during vitrification, sealing and opening.

1. Compact size - takes up minimal space.
2. Spacious internal design, enabling safe and comfortable handling of long cryocanes.
3. Five-slot storage shelf and internal magnets to keep RapidStraws in place.
4. Lid to reduce evaporation of liquid nitrogen.
5. Ergonomic handles for easier transportation.
6. Pouring spout for safe disposal of liquid nitrogen.*
7. Easy to clean and disinfect.



*Always wear protective gear when working with liquid nitrogen.



The five-slot storage shelf keeps RapidStraws securely in place.

“The new SmartBox 3 has a convenient size for vitrification procedures and can be moved safely and easily around the lab with its handles. Magnets ensure that RapidStraws stay securely in place and the lid helps to prevent excessive evaporation of liquid nitrogen during vitrification procedures.”

Lindsey Zujovic Group Director of Embryology,
TFP Nurture Fertility

Media for every need



RapidVit™ Blast
Media for vitrification of blastocysts.



RapidVit™ Oocyte
Media for vitrification of oocytes.



RapidVit™ Cleave
Media for vitrification of cleavage stage embryos.



RapidVit™ Omni
Media for vitrification of all stages.



RapidWarm™ Blast
Media for warming of blastocysts.



RapidWarm™ Oocyte
Media for warming of oocytes.



RapidWarm™ Cleave
Media for warming of cleavage stage embryos.



RapidWarm™ Omni
Media for warming of all stages.

Reliable and ready-to-use



Vitrification and warming at physiological temperature (37°C) maintain spindle integrity and viability of oocytes and embryos.



+37°C

Working at 37°C shortens vitrification time and minimises exposure time to cryoprotectants and their potential toxic effects.

Maximum support



Based on the G-Series with amino acids and energy substrates that support embryo metabolism.



MOPS buffered to stabilise pH during handling.



High levels of hyaluronan and HSA provide additional protection.



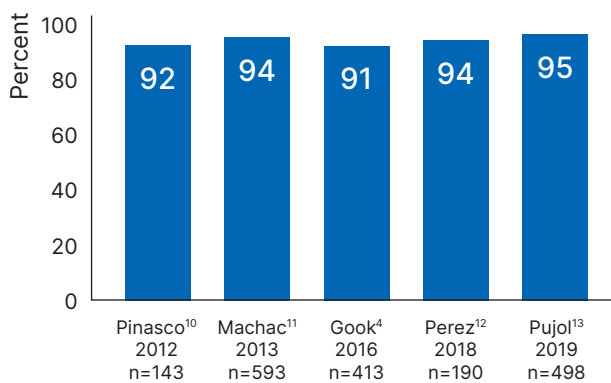
Proven success

Numerous publications show that Rapid-i Vitrification System provides excellent outcomes after vitrification of all stages, from oocytes to blastocysts.

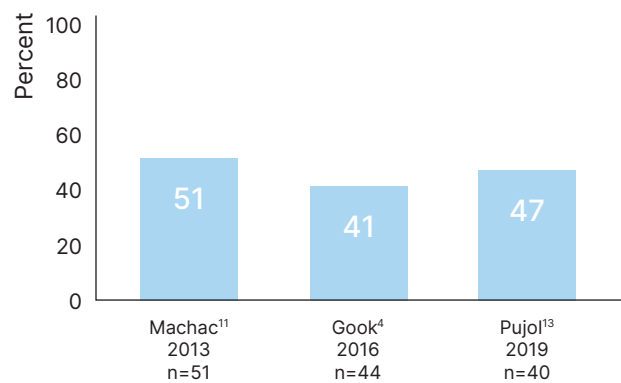
Independent published studies show that Rapid-i Vitrification System performs equally well as open vitrification systems and provides safe storage. When choosing a vitrification method, both practical aspects as well as clinical outcome must be

considered. Whether your clinic manages donor oocytes or only vitrifies blastocysts, the Rapid-i Vitrification System is available for you, providing both ease of use and excellent results.

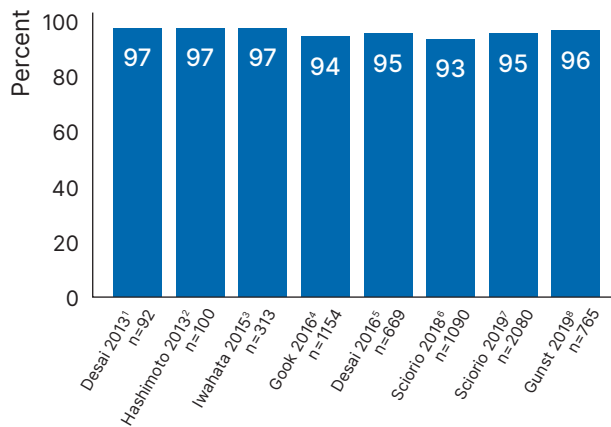
Oocyte survival rates



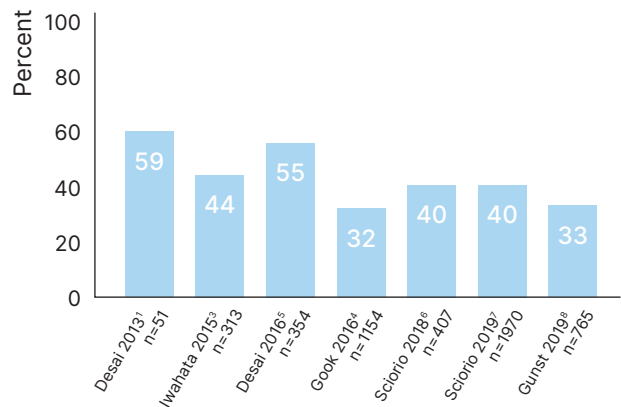
Oocyte vitrification: clinical pregnancy rates



Blastocyst survival rates



Blastocyst vitrification: clinical pregnancy rates



For more educational material such as instruction movies, blog posts, short protocols, clinical evidence and much more.

Visit vitrolife.com

A complete system

Vitrification from Vitrolife offers a simple, structured, and stress-free working environment.



Product	REF	Description	Size
Solutions for vitrification			
RapidVit™ Blast	10119	For vitrification of blastocysts	3 × 10 mL
RapidWarm™ Blast	10120	For warming of vitrified blastocysts	3 × 10 mL
RapidVit™ Oocyte	10121	For vitrification of oocytes	3 × 10 mL
RapidWarm™ Oocyte	10122	For warming of vitrified oocytes	4 × 10 mL
RapidVit™ Omni	10123	For vitrification of all stages	3 × 5 mL
RapidWarm™ Omni	10124	For warming of all vitrified stages	4 × 5 mL
RapidVit™ Cleave	10117	For warming of vitrified cleavage stage embryos	3 × 10 mL
RapidWarm™ Cleave	10118	For vitrification of cleavage stage embryos	4 × 10 mL
Devices for vitrification			
Rapid-i™ Kit	14406	Transparent	20-pack
Rapid-i™ Kit	14419	Red	20-pack
Rapid-i™ Kit	14420	Green	20-pack
Rapid-i™ Kit	14421	Blue	20-pack
Rapid-i™ Kit	14422	Yellow	20-pack
Rapid-i™ Cutter	14413	For cutting the sealed RapidStraw	1-pack
Rapid-i™ Forceps	14410	For removing Rapid-i from RapidStraw during warming	1-pack
Rapid-i™ Sealer	14414	PS-202, 120V, for ultrasonic sealing of RapidStraws after vitrification	1-pack
Rapid-i™ Sealer	14415	PS-202, 230V, for ultrasonic sealing of RapidStraws after vitrification	1-pack
Rapid-i™ Goblet	14416	Plastic tube	20-pack
Rapid-i™ CryoCane	14417	Aluminium cryocane for storage	20-pack
SmartBox 3™	14423	Box for liquid nitrogen	1-pack

Orders & customer support

Products in this brochure might not be available in all markets.
Contact your local Vitrolife Sales Representative for prices and availability.
Orders can be placed through our website at vitrolife.com. You can also contact us by email and phone:

Sweden office

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Email: order@vitrolife.com

Japan office

Phone: +81 03 6459 4437
Email: japan@vitrolife.com

US office

Phone: +1 866 848 7687
Email: order.us@vitrolife.com

China office

Phone: +86 010 6403 6613
Email: order.asia@vitrolife.com

Australia office

Phone: +61 1800 848 765
Email: order.australia@vitrolife.com

Germany office

Phone: +49 871 4306570
Email: germany@vitrolife.com

Denmark office

Phone: +45 7221 79 00
Email: order@vitrolife.com

References **1.** Desai NN, Goldberg JM, Austin C, Falcone T. The new Rapid-i carrier is an effective system for human embryo vitrification at both the blastocyst and cleavage stage. *Reprod Biol Endocrinol.* 2013 May 15;11:41. **2.** Hashimoto S, Amo A, Hama S, Ohsumi K, Nakaoka Y, Morimoto Y. A closed system supports the developmental competence of human embryos after vitrification. *J Assist Reprod Genet.* 2013 Mar;30(3):371-6. **3.** Iwahata H, Hashimoto S, Inoue M, Inoue T, Ito K, Nakaoka Y, Suzuki N, Morimoto Y. Neonatal outcomes after the implantation of human embryos vitrified using a closed-system device. *J Assist Reprod Genet.* 2015 Apr;32(4):521-6. **4.** Gook DA, Choo B, Bourne H, Lewis K, Edgar DH. Closed vitrification of human oocytes and blastocysts: outcomes from a series of clinical cases. *J Assist Reprod Genet.* 2016 Sep;33(9):1247-52. **5.** Desai N, Ploskonka S, Goodman L, Attaran M, Goldberg JM, Austin C, Falcone T. Delayed blastulation, multinucleation, and expansion grade are independently associated with live-birth rates in frozen blastocyst transfer cycles. *Fertil Steril.* 2016 Nov;106(6):1370-1378. **6.** Sciorio R, Thong KJ, Pickering SJ. Single blastocyst transfer (SET) and pregnancy outcome of day 5 and day 6 human blastocysts vitrified using a closed device. *Cryobiology.* 2018 Oct;84:40-45. **7.** Sciorio R, Thong KJ, Pickering SJ. Increased pregnancy outcome after day 5 versus day 6 transfers of human vitrified-warmed blastocysts. *Zygote.* 2019 Oct;27(5):279-284. **8.** Gunst J. et al, Data on file, 2019. **10.** Pinasco M, Hickman T, Russell H, Rashiv B. Oocyte Vitrification Freeze/Thaw Survival Rates Using an Open Versus a Closed System. *Fertil Steril.* 2012 March;97(3):S18. **11.** Machac S, Hubinka V, Larman M, Koudelka M. A novel method for human oocyte vitrification with a closed device using super-cooled air. *Fertil Steril.* 2013 Oct;100(3):S108. **12.** Perez O, Tilley B, Navarrete G, Lay L, Little LM, Gada R, Chantilis S. Oocyte vitrification using a new vitrification medium and a new closed vitrification device. A sibling oocyte study. *Fertil Steril.* 2018 Sep;110(4):E179-E180. **13.** Pujol A, Zamora MJ, Obradors A, Garcia D, Rodriguez A, Vassena R. Comparison of two different oocyte vitrification methods: a prospective, paired study on the same genetic background and stimulation protocol. *Hum Reprod.* 2019 Jun 4;34(6):989-997. **14.** ESHRE 2020; Adiga et al., 2020.

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